DESCRIPTION AMENDMENTS

Rewrite the paragraph beginning on page 1, line 12, to read as follows:

The video elementary streams in the MPTS are all typically encoded with a variable bit rate (VBR). Only if If the desired constant bit rate is too low does low, for instance if the constant bit rate of the CBR stream is less than the average bit rate of the VBR stream, it becomes impossible to demultiplex a single stream from the MPTS without modifying the video elementary stream. Obviously this is the case if the average bit rate of the VBR stream is greater than the constant bit rate of the CBR stream. Even in this case, case however, it is usually possible to ameliorate reduce the potential for visual artifacts by replacing B-type pictures with null B-type pictures.

Rewrite the paragraph beginning on page 1, line 20, to read as follows:

Prior efforts that achieve the demultiplexing of a statistically multiplexed MPTS into multiple CBR SPTSs do so by modifying (transcoding) the video streams B while more general, it streams. This is a much more compute intensive process and can negatively impact the quality of the resultant video. Examples of such products are the CherryPicker 7000 video re-multiplexer from Terayon Communication Systems located in Santa Clara, California, United States of America and possibly the PS5030 Multiplexer Module from PixStream Incorporated located in Waterloo, Ontario, Canada.

Rewrite the paragraph beginning on page 3, line 14, to read as follows:

Referring now to Fig. 1 a statistically multiplexed MPEG Transport Stream (MPTS) having a plurality of programs of variable bit rates multiplexed together is illustrated. The shadowed packets represent a single program transport stream, Program 1, the packets of which all are a part of the same

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program. Program 1. As shown between PCR 0 ms and PCR 1.8048 ms Program 1 has one-third of the packets that are interleaved with those of other programs at an MPTS stream rate of 10 Mbs, i.e., 0.1504 ms per MTS packet. The bit rate for Program 1 over that interval is 3.33333 Mbs. Between the next two PCRs at 1.8048 ms and 2.1056 ms are only two Program 1 packets with no interleaved packets so the Program 1 bit rate is that of the MTS stream, i.e., 10 Mbs. The different rates for Program 1 depend upon, for example, image complexity and the type of MPEG frame - I, P or B.

Rewrite the paragraph beginning on page 4, line 4, to read as follows:

The ~~SPTS (VBR)~~ SPTS (VBR) is separated from the ~~MTS~~ MPTS based upon the packet PIDs, and is input to a logical smoothing buffer at the desired constant bit rate to produce an SPTS having a Constant Bit Rate (CBR). The SPTS (CBR) may then be decoded at the time indicated by the decode time stamp (DTS) for each frame to recover the original images in the video stream.

Rewrite the paragraph beginning on page 4, line 10, to read as follows:

As shown in Fig. 2 for an SPTS (VBR) that has an Average Bit Rate (ABR) less than the desired CBR, there ~~are~~ may be times when the SPTS (VBR) exceeds the desired CBR. ~~In~~ During such times and in the absence of the present invention ~~this causes those~~ this could cause a downstream decoder's buffer to overflow and thus pictures ~~not to be decoded, resulting in repeated frames since the prior frame is repeated if the next frame is not decoded. The still frame remains~~ received by the decoder would not be decoded. This would result in the decoder repeatedly outputting the last successfully decoded frame until the overflow condition ends and the next complete ~~image or~~ frame is available for the decoder at the time indicated by the frame's associated decode time stamp (DTS). To ~~prevent~~ reduce the likelihood of an occurrence of this undesired anomaly, the solution according to the present

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invention is to start loading the smoothing buffer early with the packets for a frame so that when the frame's decode time ~~comes~~ comes, the full data for the frame is available for decoding, as illustrated in Fig. 3 and described in more detail below.

Rewrite the paragraph beginning on page 6, line 1, to read as follows:

The buffer model is satisfied if the buffer Buf_n never overflows or underflows. An overflow ~~or underflow~~ occurs when for any picture j of video elementary stream $\underline{n}$ and any TS packet containing picture j, $t_n^i(j) > td_n(j)$.

Rewrite the paragraph beginning on page 6, line 5, to read as follows:

In the event of overflow a B-type frame is replaced by a null B-type frame until the overflow ceases, which has the effect of repeating the prior video frame by the ~~decoder, as described in co-pending U.S. Patent Application No. 09/113,669 entitled AReadjustment of Bit Rates When Switching Between Compressed Video Streams@ by Douglas Stevens et al~~ decoder.

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